

ABSTRACT

Bias Circuit Linearization and Dynamic Power Control

[0051] A transistor bias circuit is provided that is capable of biasing an amplifier transistor having a control terminal, a current-sink terminal, and a current-source terminal in order to control inter-modulation and linearize the output corresponding to radio frequency and microwave frequency ranges. Additionally, an embodiment of the present circuit is capable of dynamic power control. The transistor bias circuit according to the present invention utilizes a leakage current to alter the electrical characteristics of the amplifier transistor. The bias circuit comprises a bias transistor having a control terminal, a current-sink terminal, and a current-source terminal. Additionally, at least one DC input port, at least one resonator element, a diode element, and a resistive element is provided.